

Please substitute the following claim 7 for the currently pending claim 7:

7. (Once amended) The isolated polypeptide of claim 1 selected from the group consisting of PG5: Ala Val Ser Glu Ile Gln Leu Met His Gly Gly Gly Gly Gly Leu Asn Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val (SEQ ID NO:3), PG9: Ala Val Ser Glu Ile Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly (Leu Asn Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val (SEQ ID NO:5), PG7: Ala Val Ser Glu Ile Gln Leu Met His Gly Gly Gly Gly Gly Gly Gly Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val (SEQ ID NO:6), PrPG5: Ala Val Ser Glu His Gln Leu Leu His Gly Gly Gly Gly Gly (Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile (SEQ ID NO:64), PrPG9: Ala Val Ser Glu His Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly (Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile (SEQ ID NO:65) and PrPG7: Ala Val Ser Glu His Gln Leu Leu His Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile (SEQ ID NO:66) and functional derivatives thereof.

Please insert the sequence listing at the end of the application.

Remarks

No new matter has been added. The specification has been amended to direct the entry of this sequence listing after the claims of the above identified application and to provide the SEQ ID NO's next to the specific sequence.

In accordance with 37 C.F.R. § 1.821(g), this submission includes no new matter.

In accordance with 37 C.F.R. § 1.821(f), the paper copy of the Sequence Listing and the computer readable copy of the Sequence Listing submitted herewith in the above application are the same.

Summary

Applicants submit herewith both paper and computer copies of the Sequence Listing. No new matter has been added to the application by way of the amendments presented herein.

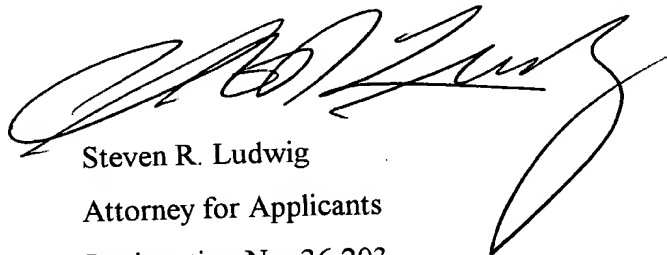
Applicants respectfully request that the Sequence Listing submitted herewith be introduced into the captioned application.

Applicants have also amended the specification to accurately reflect that the correct sequence identification numbers within the specification now correspond to the sequence identification numbers contained in the Sequence Listing submitted herewith.

It is respectfully believed that this application is now in condition for examination. Early notice to this effect is respectfully requested.

Respectfully submitted,

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Version of Amendment With Markings to Show Changes Made

In the Specification:

The paragraph starting on page 11, line 23, and ending on page 11, line 24:

Figure 7. Presentation of the nucleic acid (SEQ ID NO:36) and amino acid sequence [(SEQ ID NO:12)] (SEQ ID NO:37) of the Tether-1 receptor.

The paragraph starting on page 12, line 14, and ending on page 12, line 15:

Figure 11B shows the computer generated nucleotide sequence coding for PTH(1-9) (SEQ ID NO:48) used in the oligonucleotide.

The paragraph starting on page 12, line 16, and ending on page 12, line 17:

Figure 11C. Sequence of oligonucleotide E16631A1 [(SEQ ID NO:48)] (SEQ ID NO:49) used to construct rTether-1.[.]

The paragraph starting on page 12, line 18, and ending on page 12, line 21:

Figure 11D. Flanking sequence and PTH insert [(SEQ ID NO: 49)] (SEQ ID NO:50). The slash marks (/) indicates the flanking regions to the left and right of the PTH insert. Sequence of oligonucleotide E16631A and its protein translation. (note DNA sequence here is same as in Figure 11C [(SEQ ID NO. 48)] (SEQ ID NO:49).

The paragraph starting on page 26, line 3, and ending on page 26, line 10:

In another specific embodiment, this invention provides a biologically active peptide useful for the design of agonists for the PTH1R or PTH2R receptor comprising the compound S-(L)_n-B, wherein S is the signaling peptide PTH(1-9)(Ala Val Ser Glu Ile Gln Leu Met His (SEQ ID NO: 1)); L is the linker molecule (Gly)₇; and B is a binding peptide PTH(17-31)(Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val [(SEQ ID NO:4)] (SEQ ID NO:63)). The entire sequence being PG7: Ala Val Ser Glu Ile Gln Leu Met His Gly Gly Gly Gly Gly Gly Gly Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val (SEQ ID NO:6).

The paragraph starting on page 26, line 11, and ending on page 26, line 19:

In one specific embodiment, this invention provides a biologically active peptide useful for the design of agonists for the PTH1R or PTH2R receptor comprising the compound S-(L)_n-B, wherein S is the signaling peptide PTHrP(1-9)(Ala Val Ser Glu His Gln Leu Leu His (SEQ ID NO:7)); L is the linker molecule (Gly)₅; and B is a binding peptide PTHrP(15-31)(Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile (SEQ ID NO:8)). The entire sequence being PrPG5: Ala Val Ser Glu His Gln Leu Leu His Gly Gly Gly Gly Gly (Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile [(SEQ ID NO:9)](SEQ ID NO:64).

The paragraph starting on page 26, line 20, and ending on page 26, line 27:

In another specific embodiment, this invention provides a biologically active peptide useful for the design of agonists for the PTH1R or PTH2R receptor comprising the compound S-(L)_n-B, wherein S is the signaling peptide PTHrP(1-5)(Ala Val Ser Glu His (SEQ ID NO:10)); L is the linker molecule (Gly)₉; and B is a binding peptide PTHrP(15-31)(Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile (SEQ ID NO:8)). The entire sequence being PrPG9: Ala Val Ser Glu His Gly Gly Gly Gly Gly Gly Gly Gly Gly (Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile [(SEQ ID NO:11)] (SEQ ID NO:65).

The paragraph starting on page 26, line 28, and ending on page 27, line 5:

In another specific embodiment, this invention provides a biologically active peptide useful for the design of agonists for the PTH1R or PTH2R receptor comprising the compound S-(L)_n-B, wherein S is the signaling peptide PTHrP(1-9)(Ala Val Ser Glu His Gln Leu Leu His (SEQ ID NO:7)); L is the linker molecule (Gly)₇; and B is a binding peptide PTHrP(17-31)(Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile (SEQ ID NO:12)). The entire sequence being PrPG7: Ala Val Ser Glu His Gln Leu Leu His Gly Gly Gly Gly Gly Gly Gly Gly Gly Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile [(SEQ ID NO:13)] (SEQ ID NO:66).

The paragraph starting on page 30, line 1, and ending on page 30, line 3:

Additionally, another embodiment of the invention may use PTH (1-11) (Ala Val Ser Glu Ile Gln Leu Met His Asn Leu [(SEQ ID NO:46)] (SEQ ID NO:67) where a signaling peptide ("S") is called for.

The paragraph starting on page 50, line 16, and ending on page 51, line 2:

Using the information provided herein, such as the nucleotide sequence in Figures 7, 9 and 10, a nucleic acid molecule of the present invention encoding a Tether-1 receptor, Tether-1C receptor, and rδNt/Ct receptor polypeptide, respectively, may be obtained using standard techniques. Cloning and screening procedures are known for the isolation of the wild-type PTH1R sequence, such as those for cloning cDNAs using mRNA as starting material. Subsequent to cloning the wild-type receptor, the appropriate deletion in the sequence may be made as described herein. Illustrative of the invention, the nucleic acid molecule described in SEQ ID NO:36, SEQ ID NO:38 and SEQ ID NO:40 was obtained by using standard restriction enzyme digestion and cloning techniques in the art. The determined nucleotide sequences of Tether-1 receptor (SEQ ID NO:36), Tether-1C receptor [(SEQ ID NO:10)] (SEQ ID NO:10), and rδNt/Ct (SEQ ID NO:40) contains an open reading frame encoding a protein predicted leader sequence of about 22 amino acid residues. The amino acid sequence of the predicted mature Tether-1 receptor, Tether-1C receptor, and rδNt/Ct receptor is shown in Figures 7, 9 and 10.

In the Claims:

4. (Once amended) The isolated polypeptide of claim 2, wherein S is selected from the group consisting of PTH(1-9)(Ala Val Ser Glu Ile Gln Leu Met His (SEQ ID NO: 1), PTH(1-5)(Ala Val Ser Glu Ile (SEQ ID NO: 4) or PTH (1-11) (Ala Val Ser Glu Ile Gln Leu Met His Asn Leu [(SEQ ID NO:46)] (SEQ ID NO:67).

6. (Once amended) The isolated polypeptide of claim 1, wherein B is selected from the group consisting of PTH(15-31)(Leu Asn Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val (SEQ ID NO:2), PTH(17-31)(Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val [(SEQ ID NO:4)] (SEQ ID NO:63), PTHrP(15-31)(Ile Gln

Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile (SEQ ID NO:8), and PTHrP(17-31)(Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile (SEQ ID NO:12).

7. (Once amended) The isolated polypeptide of claim 1 selected from the group consisting of PG5: Ala Val Ser Glu Ile Gln Leu Met His Gly Gly Gly Gly Gly Leu Asn Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val (SEQ ID NO:3), PG9: Ala Val Ser Glu Ile Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly (Leu Asn Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val (SEQ ID NO:5), PG7: Ala Val Ser Glu Ile Gln Leu Met His Gly Gly Gly Gly Gly Gly Gly Ser Met Glu Arg Val Glu Trp Leu Arg Lys Lys Leu Gln Asp Val (SEQ ID NO:6), PrPG5: Ala Val Ser Glu His Gln Leu Leu His Gly Gly Gly Gly Gly (Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile [(SEQ ID NO:9)] (SEQ ID NO:64), PrPG9: Ala Val Ser Glu His Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly (Ile Gln Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile [(SEQ ID NO:11)] (SEQ ID NO:65) and PrPG7: Ala Val Ser Glu His Gln Leu Leu His Gly Gly Gly Gly Gly Gly Gly Asp Leu Arg Arg Arg Phe Phe Leu His His Leu Ile Ala Glu Ile [(SEQ ID NO:13)] (SEQ ID NO:66) and functional derivatives thereof.

The Sequence Listing is added at the end of the application.